

概要:

Music perception involves complex brain functions underlying feature extraction, perceptual grouping of these features, memory, processing of emotion, and so on.

Numerous studies used neuroimaging techniques, e.g., functional magnetic resonance

imaging (fMRI), electroencephalography (EEG), or magnetoencephalography (MEG), and have reported neural correlates of these processing in the brain.

Also, it is well

known that musicians have greater sensitivity to physical properties of a tone, such as

absolute pitch. Such superiority of musicians is based on long-term musical experience

and several studies have found that the experience changes the brain activity. However,

the details about the brain mechanism of musical information processing and an effect of

musical experience are still not well understood.

Today, I would like to talk about our researches related to early stages of musical

processing, such as feature extraction and perceptual grouping, and comparison between musicians and non-musicians using MEG. The results of our studies suggested

that feature extraction occurs at the level of the auditory cortex and musical experience

has an influence in such early stages of musical information processing.